

### REMARKS

This is in response to the Office Action dated November 21, 2005. In view of the foregoing amendments and following representations, reconsideration is respectfully requested.

Initially, on page 2 of the Office Action, claims 1-4 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Pham et al. (USPN 6,051,125) in view of Ito et al. (JP 51-119703). In response, claim 1 has been amended to more clearly distinguish the present invention over the prior art.

The present invention, as defined in claim 1, is directed to a method for producing high-purity oxygen and now includes *inter alia*, the steps of:

supplying a high temperature gas, which is generated in said anode side of said electrolyzer, to a heat exchanger; and

supplying steam produced in said heat exchanger to a pyrolysis fluidized bed of said pyrolysis furnace that produces the reducing gas;

wherein the steam supplied to said cathode side of said electrolyzer is produced in said heat exchanger.

**Pham** discloses a method of producing hydrogen that includes supplying a reducing gas at the anode side of an electrolyzer membrane.

The **Ito** reference teaches producing a reducing gas by pyrolysis of an organic material.

However, the collective teachings of the Pham and Ito references do not disclose or remotely suggest providing high temperature exhaust gas from the anode side of the electrolyzer to a heat exchanger and supplying steam produced in the heat exchanger to the pyrolysis

fluidized bed of the pyrolysis furnace. Furthermore, the references do not teach or suggest supplying high temperature steam produced in the heat exchanger to the cathode side of the high temperature steam electrolyzer.

Due to the inclusion of the above-described limitations, it is submitted that the present application, as defined in independent claim 1, now clearly patentably distinguishes over the prior art of record. Thus, the present application is now clearly in condition for allowance. The Examiner therefore is requested to pass this case to issue.

In the event that the Examiner has any comments or suggestions of a nature necessary to place this case in condition for allowance, then the Examiner is requested to contact Applicant's undersigned attorney by telephone to promptly resolve any remaining matters.

Respectfully submitted,

Hiroyuki FUJIMURA et al.

By: Michael S. Huppert

Michael S. Huppert  
Registration No. 40,268  
Attorney for Applicants

MSH/kjf  
Washington, D.C. 20006-1021  
Telephone (202) 721-8200  
Facsimile (202) 721-8250  
May 22, 2006